HD

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,141	01/08/2004	David A. Kapilow	2002-0311	4769

26652 7590 02/19/2008

AT&T CORP.
ROOM 2A207
ONE AT&T WAY
BEDMINSTER, NJ 07921

EXAMINER	
CHAWAN, VIJAY B	
ART UNIT	**PAPER NUMBER**
2626	

MAIL DATE	DELIVERY MODE
02/19/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/755,141	KAPILOW ET AL.	
	Examiner	Art Unit	
	Vijay B. Chawan	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17 and 19-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17, 19-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-17, and 19-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gasper (5,278,943) in view of Walker et al., (US 2001/00449602).

As per claim 1, Gasper et al., teach a method of generating a synthetic voice comprising:

receiving a user selection of a first text-to-speech (TTS) voice (Col.4, line 53 – Col. 5, line 37) and a second TTS voice from a plurality of TTS voices (Col.4, line 53 – Col. 5, line 37);

receiving at least one user selected voice characteristic (Col.4, line 53 – Col. 5, line 37).

However, Gasper et al., do not specifically teach generating a new TTS voice and the second TTS voice and according to the user selected voice characteristic. Walker et al., do teach generating a new TTS voice and the second TTS voice and according to the user selected voice characteristic (Fig.1, synthesized audio, Fig.2).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to include the capability of generating a new TTS voice as taught by

Walker et al., in the method of Gasper et al., because this would enhance the quality of TTS conversion of the text into speech.

As per claim 2, Gasper et al., in view of Walker et al., teach the method of claim 1, further comprising: presenting the new TTS voice to the user for preview, receiving user-selected adjustments, and, presenting a revised TTS voice to the user for preview according to the user-selected adjustments (Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 3, Gasper et al., in view of Walker et al., teach the method of claim 1, wherein generating the new TTS voice further comprises interpolating between corresponding segment parameters of the first TTS voice and the second TTS voice (Walker et al., Fig.1, synthesized audio, Fig.2).

As per claim 4, Gasper et al., in view of Walker et al., teach the method of claim 1, wherein the user-selected voice characteristic relates to mis-pronunciations (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 5, Gasper et al., in view of Walker et al., teach the method of claim 3, wherein the segment parameters relate to prosodic characteristics (Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 6, Gasper et al., in view of Walker et al., teach the method of claim 5, wherein the prosodic characteristics are selected from a group comprising pitch contour, spectral envelope, volume contour and phone durations (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 7, Gasper et al., in view of Walker et al., teach the method of claim 6, wherein the prosodic characteristics are further selected from a group comprising

syllable accent, stress and emotion (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 8, Gasper et al., in view of Walker et al., teach the method of claim 1, wherein blending the first TTS voice and the second TTS voice further comprises extracting a prosodic characteristic from the LPC residual of the first TTS voice and the LPC residual of the second TTS voice and interpolating between the extracted prosodic characteristics (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65, Col.4, line 53 – Col. 5, line 37).

As per claim 9, Gasper et al., in view of Walker et al., teach the method of claim 8, wherein the prosodic characteristic is pitch, wherein the interpolation of the extracted pitches from the first TTS voice and the second TTS voice generates a new blended pitch (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 10, Gasper et al., in view Walker et al., teach a method of generating a synthetic voice, the method comprising: receiving a user selection of TTS voice and a voice characteristic, and presenting the user with a new TTS voice comprising the selected TTS voice blended with at least one other TTS voice to achieve the selected voice characteristic (Col.4, line 53 – Col. 5, line 37, Col.5, lines 50-64, Col.6, lines 58-65).

However, Gasper et al., do not specifically teach generating a new TTS voice and the second TTS voice and according to the user selected voice characteristic. Walker et al., do teach generating a new TTS voice and the second TTS voice and according to the user selected voice characteristic (Fig.1, synthesized audio, Fig.2).

Therefore it would have been obvious to one with ordinary skill in the art at the time of invention, to include the capability of generating a new TTS voice as taught by Walker et al., in the method of Gasper et al., because this would enhance the quality of TTS conversion of the text into speech.

As per claim 11, Gasper et al., Walker et al., teach the method of claim 10, further comprising: presenting the new TTS voice to the user for preview, receiving user-selected adjustments, and presenting a revised TTS voice to the user for preview according to the user-selected adjustments (0030 - 0041).

As per claim 12, Gasper et al., in view of Walker et al., teach the method of claim 10, wherein generating the new TTS voice further comprises interpolating between corresponding segment parameters of the first TTS voice and the at least one other voice (Walker et al., 0030 - 0041).

As per claim 13, Gasper et al., Walker et al., teach the method of claim 11, wherein the segment parameters relate to prosodic characteristics (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 14, Gasper et al., in view of Walker et al., teach the method of claim 13, wherein the prosodic characteristics are selected from a group comprising pitch contour, spectral envelope, volume contour and phone durations (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 15, Gasper et al., in view Walker et al., teach the method of claim 14, wherein the prosodic characteristics are further selected from a group comprising

syllable accent, stress and emotion (Gasper et al., Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 16, Gasper et al., in view of Walker et al., teach the method of claim 10, wherein the blended voice is generated by extracting a prosodic characteristic from the LPC residual of the first TTS voice and the LPC residual of the second TTS voice and interpolating between the extracted prosodic characteristics (Col.4, line 53 – Col. 5, line 37).

As per claim 17, Gasper et al., in view of Walker et al., teach the method of claim 10, wherein the user-selected voice is blended with a plurality of other TTS voices to generate the new TTS voice (0030 - 0041).

As per claim 19, Gasper et al., in view of Walker et al., teach the method of claim 16, wherein the prosodic characteristic is pitch, wherein the interpolation of the extracted pitches from the first TTS voice and the second TTS voice generates a new blended pitch ((Col.4, line 53 – Col. 5, line 37, Col.5, lines 50-64, Col.6, lines 58-65).

As per claim 20, Gasper et al., in view of Walker et al., teach the method of claim 10, wherein the voice characteristics relate to mispronunciations (Col.4, line 53 – Col. 5, line 37, Col.5, lines 50-64, Col.6, lines 58-65).

Claims 21-27 are system claims to implement the method of claims 1-10, and are similar in scope and content and are rejected under similar rationale.

Claims 28-35 are method claims similar in scope and content of claims 1-20 and are rejected under similar rationale.

Response to Arguments

1. Applicant's arguments with respect to claims 1-17 and 19-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vijay B. Chawan
Primary Examiner
Art Unit 2626

VIJAY CHAWAN
PRIMARY EXAMINER

vbc
2/13/08